Amendments to the Claims:

This listing of Claims will replace all prior versions, and listings, of claims in the application:

1.   (Previously Presented)   A transmission device for prioritising data elements of a data stream for transmission to a receiving device, comprising:

decodability determining means for determining a decodability of a current data element, the decodability indicating the extent to which the current data element is decodable at the receiving device;

prioritising means for assigning a priority to the current data element based on the determined decodability; and

a transmitter controller for scheduling a transmission of the current data element to the receiving device based on the priority.

2.   (Previously Presented)   The transmission device of claim 1, wherein the decodability determining means is adapted to determine the decodability of the current data element using information on which of a plurality of data elements were transmitted to the receiving device.

3.   (Previously Presented)   The transmission device of claim 1, wherein the decodability determining means is adapted to receive a feedback from the receiving device indicating which of the data elements were received error free.

4.   (Previously Presented)   The transmission device of claim 1, wherein the decodability determining means is adapted to, if the current data element requires a reference data element for being fully decodable at the receiving device, the set decodability of the current data element equal to the decodability of the reference data element, when the reference data element has been transmitted.

5.   (Previously Presented)   The transmission device of claim 1, wherein the decodability determining means is adapted to, if the current data element requires multiple reference data elements for being fully decodable at the receiving device, determining the decodability of the current data element based on the decodabilities of the reference data elements.

6.   (Previously Presented)   The transmission device of claim 1 wherein the decodability determining means is adapted to recalculate the decodability of at least a portion of the data elements upon transmission of the current data element.

7.   (Previously Presented)   The transmission device of claim 1, wherein, upon transmission of the current data element, the decodability determining means is adapted to recalculate a decodability of data elements indicated in a decoding dependency record of the current data element, the decoding dependency record indicating all data elements requiring the current data element for decoding.

8.   (Previously Presented)   The transmission device of claim 1, wherein, the data stream comprises: independent data elements being independent from other data elements and dependent data elements being dependent on at least one reference data element, wherein the decodability determining means is adapted to set the decodability of an independent data element to a maximum decodability and to set the decodability of a dependent data element equal to the decodability of the reference data element, when the reference data element has been transmitted.

9.   (Previously Presented)   The transmission device of claim 1, wherein the data stream comprises:

intra-blocks being independent from other data elements and the decodability of an intra-block being set to a maximum decodability, indicating that the intra-block is fully decodable at the receiving device;

inter-blocks encoding differences between content of a data element and content of a reference data block, the decodability of an inter-block being set equal to the decodability of the reference data block; and

skip-blocks indicating content requiring content of a reference data block, the decodability of a skip-block being set equal to the decodability of the reference data block.

10.   (Previously Presented)   The transmission device of claim 1, wherein the decodability determining means is adapted to:

determine an average decodability of a number of data elements;

determine a decodability increase of the average decodability of the number of data elements obtainable by transmitting the current data element; and

determine the priority of the current data element based on the decodability increase.

11.   (Previously Presented)   The transmission device of claim 9, wherein the prioritising means is adapted to determine the priority of the current data element based on the decodability increase divided by the data element size of the current data element.

12.   (Previously Presented)   The transmission device of claim 9, wherein the number of data elements represents data elements of a predetermined time window of the data stream or of the entire data stream.

13.   (Previously Presented)   The transmission device of claim 1, wherein the transmitter controller is adapted to estimate the probability of an error-free transmission over a transmission channel.

14.   (Previously Presented)   The transmission device of claim 8, wherein the decodability determining means is adapted to determine the decodability as the

product of the extent to which the current data element is decodable at the receiving device and the probability of an error-free transmission of the current data packet over a transmission channel.

15.   (Previously Presented)   The transmission device of claim 14, wherein the decodability determining means is adapted to

set the decodability of an independent data element to the determined probability; and

set the decodability of a dependent data element to the determined probability times the decodability determined based on the decodability the at least one reference data element.

16.   (Previously Presented)   The transmission device of claim 9, wherein the decodability determining means is adapted to set:

the decodability of an intra-block equal to the probability of an error-free transmission;

the decodability of an inter-block equal to the decodability of the reference data block multiplied by the probability of an error-free transmission; and

the decodability of a skip-block independent of the probability of an error-free transmission.

17.   (Previously Presented)   The transmission device of claim 1, wherein the decodability determining means is adapted to set the decodability of the reference data element equal the decodability of a data frame containing the reference data element.

18.   (Previously Presented)   The transmission device of claim 1, wherein the data stream is a video stream and motion compensation is disregarded.

19. (Previously Presented)   A method for prioritising data elements of a data stream for transmission to a receiving device, comprising:

determining a decodability of a current data element, the decodability indicating the extent to which the current data element is decodable at the receiving device;

assigning a priority to the current data element based on the determined decodability; and

scheduling a transmission of the current data element to the receiving device based on the priority.

20. (Previously Presented)   The method of claim 19, including determining the decodability of the current data element using information on which of a plurality o data elements were transmitted to the receiving device.

21. (Previously Presented)   The method of claim 19, including receiving a feedback from the receiving device indicating which of the data elements were received error free.

22. (Previously Presented)   The method of claim 19, wherein, if the current data element requires a reference data element for being fully decodable at the receiving device, the decodability of the current data element is set equal to the decodability of the reference data element, when the reference data element has been transmitted.

23. (Previously Presented)   The method of claim 19, wherein, if the current data element requires multiple reference data elements for being fully decodable at the receiving device, the decodability of the current data element is determined based on the decodabilities of the reference data elements.

24.   (Previously Presented)   The method of claim 19, including recalculating the decodability of at least a portion of the data elements upon transmission of the current data element.

25.   (Previously Presented)   The method of claim 19, including, upon transmission of the current data element, recalculating a decodability of data elements indicated in a decoding dependency record of the current data element, the decoding dependency record indicating all data elements requiring the current data element for decoding.

26.   (Previously Presented)   The method of claim 19, wherein, the data stream comprises: independent data elements being independent from other data elements and dependent data elements being dependent on at least one reference data element, wherein the decodability of an independent data element is set to a maximum decodability and the decodability of a dependent data element is set equal to the decodability of the reference data element, when the reference data element has been transmitted.

27.   (Previously Presented)   The method of claim 19, wherein the data stream comprises:

intra-blocks being independent from other data elements and the decodability of an intra-block being set to a maximum decodability, indicating that the intra-block is fully decodable at the receiving device;

inter-blocks encoding differences between content of a data element and content of a reference data block, the decodability of an inter-block being set equal to the decodability of the reference data block; and

skip-blocks indicating content requiring content of a reference data block, the decodability of a skip-block being set equal to the decodability of the reference data block.

28.   (Previously Presented)   The method of claim 19, including

determining an average decodability of a number of data elements;

determining a decodability increase of the average decodability of the number of data elements obtainable by transmitting the current data element; and

determining the priority of the current data element based on the decodability increase.

29.   (Previously Presented)   The method of claim 28, including determining the priority of the current data element based on the decodability increase divided by the data element size of the current data element.

30.   (Previously Presented)   The method of claim 28, wherein the number of data elements represents data elements of a predetermined time window of the data stream or of the entire data stream.

31.   (Previously Presented)   The method of claim 19, including estimating the probability of an error-free transmission over a transmission channel.

32.   (Previously Presented)   The method of claim 27, including determining the decodability as the product of the extent to which the current data element is decodable at the receiving device and the probability of an error-free transmission of the current data packet over a transmission channel.

33.   (Previously Presented)   The method of claim 32, including

setting the decodability of an independent data element to the determined probability; and

setting the decodability of a dependent data element to the determined probability times the decodability determined based on the decodability the at least one reference data element.

34.   (Previously Presented)   The method of claim 28, including

setting the decodability of an intra-block equal to the probability of an error-free transmission;

setting the decodability of an inter-block equal to the decodability of the reference data block multiplied by the probability of an error-free transmission; and

setting the decodability of a skip-block independent of the probability of an error-free transmission.

35.   (Previously Presented)   The method of claim 19, including setting the decodability of the reference data element equal the decodability of a data frame containing the reference data element.

36.   (Previously Presented)   The method of claim 19, wherein the data stream is a video stream and motion compensation is disregarded.

37. – 39.   (Canceled)